In the Claims:

What is claimed is:

1. (currently amended) A comminution apparatus for reducing a particle size of a material, the comminution apparatus comprising:

a cutting chamber defining an interior volume having a V-shaped cross section, the cutting chamber comprising a first member and a second member forming an angle therebetween, wherein each of the first member and the second member include a plurality of slots therethrough providing access to the interior volume; and

a rotatable arbor disposed outside the interior volume of the cutting chamber and supporting a plurality of toothed blades thereon such that during rotation of the arbor a portion of each of the blades enters an interior volume of the cutting chamber through the slots in the first member and exits the interior volume of the cutting chamber through the slots in the second member, and further wherein a plurality of teeth of said toothed blades have a positive rake.

2. (original) The comminution apparatus of claim 1, wherein the cutting chamber includes two end supports, each end support having a first recess and a second recess for receiving an end of the first member and the second member, respectively.

3. (original) The comminution apparatus of claim 1, wherein the first member includes an insert through which are formed the plurality of slots in the first member.

4. (original) The comminution apparatus of claim 1, further comprising a housing enclosing the cutting chamber and the arbor.

5. (currently amended) The comminution apparatus of claim 4, wherein the housing is adapted to be supported on a table of a milling machine, and wherein the milling machine ~~selectively~~ rotates the arbor.

6. (original) The comminution apparatus of claim 4, further comprising a cleaning roller rotatably supported on the housing and contacting the blades during rotation.

7. (original) The comminution apparatus of claim 1, wherein the first member includes at least one coolant channel therein.

8. (original) The comminution apparatus of claim 4, wherein the housing includes an inlet for introduction of an inert gas into the housing.

9. (original) The comminution apparatus of claim 1, wherein the blades are separated on the arbor by spacers disposed intermediate adjacent blades.

10. (original) The comminution apparatus of claim 1, further comprising a collection hopper communicating with and receiving processed material from the interior volume of the cutting chamber.

11. (original) The comminution apparatus of claim 1, wherein the plurality of slots in the first member and the plurality of slots in the second member provide access to a bottom portion of the interior volume of the cutting chamber.

12. (currently amended) A method for reducing a particle size of a feed material, the method comprising:

providing a comminution apparatus comprising

a cutting chamber defining an interior volume, the cutting chamber comprising a first member and a second member forming an angle therebetween, wherein each of the first member and the second member include a plurality of slots therethrough providing access to the interior volume, and

a rotatable arbor disposed outside the interior volume of the cutting chamber and supporting a plurality of toothed blades thereon such that during rotation of the arbor a portion of each of the blades enters an interior volume of the cutting chamber through the slots in the first member and exits the interior volume of the cutting chamber through the slots in the second member, and further wherein a plurality of teeth of said toothed blades have a positive rake;

introducing ~~the~~ a metal or metal alloy feed material into the interior volume of the cutting chamber; and

rotating the arbor to thereby rotate the plurality of blades and agitate and comminute the feed material within the interior volume of the cutting chamber.

13. (original) The method of claim 12, wherein the feed material is selected from the group consisting of zirconium, titanium, magnesium, niobium, calcium, copper, potassium, hafnium and aluminum.

14. (original) The method of claim 12, wherein rotating the plurality of blades reduces a particle size of the feed material to no greater than mesh size 10.